

AMENDMENTS TO THE DRAWINGS

Please Replace Figs. 1, 2(a) and 2(b) with the Attached Replacement Sheet.

Attachment: 1 Replacement Sheet. The Replacement Sheet further illustrates the height “h” as requested by the Examiner.

REMARKS

Claims 10-20 are all the claims pending in the application. Claim 10-19 have been previously examined. Claims 16-19 have been withdrawn pursuant to an Election of Species. Applicants duly affirm the election.

Claims 10-15 are herein amended. Claim 20 has been added herewith and reads on the elected species.

Preliminary Matters

Applicants wish to thank the Examiner for indicating receipt of the election of Group I. Applicants would also like to thank the Examiner for indicating that the subject matter of claim 11 is allowable.

Objections

The Examiner has objected to the drawings under 37 CFR § 1.83(a). The Examiner alleged that the “height” as described in the claims of the present application is not shown. The Examiner has also alleged that the arrangement described in claim 5 is not shown.

With regard to the height not being shown, Figs. 1 and 2(b) are herein amended, and Applicants respectfully submit that Examiner’s concerns have now been addressed by showing the height “h”. Therefore, Applicant respectfully requests that this objection be withdrawn.

With respect to claim 5, Applicants respectfully submit that the Examiner is mistaken. First, claim 5 was cancelled in the preliminary amendment filed on September 6, 2007 and is no longer pending in this action. However, Applicants presume that the Examiner intended to allege that claim 15 is not shown in the drawings. Applicants submit that claim 15 is directed, for example, to an exemplary embodiment of the device shown in Figs. 1, 2(a) and 2(b). Claim 15 recites that the height of the flight portion located below the hopper port is between 2% and

6% smaller than the diameter of the screw. Figs. 1, 2(a) and 2(b) show a screw wherein the height of the flight portion located below the hopper port is smaller than the diameter of the screw. There is no requirement that a figure be drawn to scale in order to show a size difference between 2% and 6% as recited in claim 15. Therefore, Applicants respectfully request that this objection be withdrawn.

Claim Rejections-35 U.S.C. 112, Second Paragraph

The Examiner has rejected claims 10-15 as being indefinite. Claim 10 has been amended herein and Applicants respectfully submit that all the Examiner's concerns have been appropriately addressed. Claims 11-15 are dependant from amended claim 10 and are free of any indefiniteness by virtue of their dependency. Therefore, Applicants respectfully request that this rejection be withdrawn.

Claim Rejections-35 U.S.C. 102

Claims 10 and 12-15 have been rejected under 35 U.S.C. 102(b) as being anticipated by Wenger et al (US 4,118,164; hereinafter "Wenger"). Applicants respectfully traverse.

Wenger is directed to an extrusion apparatus for producing a dense, uniformly layered meat analogue product. Wenger describes the key to producing a product as applying heat and moisture while breaking up the meat analogue into small pieces, then compressing the meat analogue to a proper texture. Over the length of the extrusion apparatus, the flight of the screw changes angle, spacing, and diameter, in order to break up and compress the meat analogue. Figs. 3 and 4 show the section of the apparatus where the meat analogue enters the extruder. The flighting of the screw is shown to become higher as the material inlet 18 is approached, and becomes smaller as the meat analogue moves downstream. This structure prevents materials in

the vicinity of the inlet 18 from flowing back and all of the injected materials are extruded in the cylinder so that gage fluctuations in the extruded materials *increase*.

Conversely, as described in the present specification, an exemplary aspect of the present invention is to *reduce* gage fluctuations. This is achieved by increasing the height of the flighting as material travels down the extrusion device. Claim 10 recites (and Fig. 1 shows, e.g.) that the height of the flight portion 12z below the hopper 13 is lower than the height of screw flight 12a located on a down stream side. This exemplary structure allows some of the injected materials to flow backward so that all of the injected materials are not extruded in the cylinder. Accordingly, since pressure fluctuations affecting the screw flight 12z located below the hopper port 13 can be controlled, gage fluctuations of the extruded materials can be reduced.

Wenger does not disclose a screw wherein the height of the flight portion below a hopper port is lower than the height of a flight portion located downstream of the hopper port. Wenger does not anticipate at least this aspect of claim 10. Accordingly, Applicants respectfully submit that claim 10 is patentable over Wenger and respectfully request that the rejection of claim 10 be withdrawn.

Further, claims 12-15 depend from claim 10, which has been shown above to be patentable over Wenger, and Applicants respectfully submit that claims 12-15 are at least patentable by virtue of their dependency. Therefore, Applicants respectfully request that the rejection of claims 12-15 be withdrawn as well.

Claims 10 and 12-15 are rejected under 35 U.S.C. § 102(e) as being anticipated by Putti (US 6,331,069). Applicants respectfully traverse this rejection.

Putti is directed to a concrete extrusion machine and spiral conveyor. The apparatus in Putti consists of a shaft to which are mounted several sections that create a spiral conveyor.

These sections have a flighting with a height that decreases over its length. Further, these sections also have an increasing base diameter. Fig. 7 of Putti clearly shows that the height of the flight 202 located beneath the hopper 32 is higher than the height of flights 204.1 located downstream of the hopper. The net effect of this structure is that material pushed along the conveyor is pushed radially outward, not compressed longitudinally.

Conversely, exemplary embodiments of the present application are directed to longitudinally compressing materials, without causing gage fluctuations. This is achieved by the flighting near the hopper port having a smaller height than the flighting downstream of the hopper. Claim 10 recites (and fig. 1 shows, e.g.,) the screw flight 12z located below the hopper port 13s as having a height less than the height of flighting 12a located downstream of the hopper.

Putti does not disclose a screw having a flight portion below the hopper port with an initial height less than the height of a downstream flighting. Therefore, Putti does not anticipate at least this aspect of claim 10. Accordingly, Applicants respectfully submit that claim 10 is patentable over Putti and respectfully request that the rejection of claim 10 be withdrawn.

Claims 12-15 depend from claim 10 and Applicants respectfully submit that claims 12-15 are at least patentable by virtue of their dependency. Therefore, Applicants respectfully request that the rejection of claims 12-15 be withdrawn as well.

Additional Claims

Claim 20 has been added herein and depends from claim 10 which has been shown above to be patentable over the references cited by the Examiner. Therefore, Applicants respectfully submit that claim 20 is at least patentable by virtue of its dependency, and request that claim 20 be allowed.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880 via EFS payment screen. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER


Daniel V. Williams
Registration No. 45,221

Date: December 19, 2007